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Control of Inventories in Retail Food Stores Through Use of Order Books

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Agricultural Marketing Service
Marketing Research Divison
Washington, D. C.

UNITED STATES DEPARTMENT OF AGRICULTURE

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CONTROL OF INVENTORIES IN RETAIL FOOD STORES THROUGH USE OF ORDER BOOKS

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INTRODUCTION

The research on which this study is based is part of a broad program to improve the efficiency and hold down the costs of marketing farm products. Inadequate controls of inventories in retail food stores add to marketing costs: An excessive inventory results in a loss in the earning power of the money tied up in excess merchandise, the costs of extra handling, and the use of valuable display or back-room space; too small an inventory may cause consumer inconvenience and the loss of a planned purchase.

In recent years, wholesale food distributors and retailers have shown increasing concern for development of adequate systems for controlling grocery inventories at the retail level. The desire to create a one-stop food store and the thousands of items that need to be stocked in such a store, plus the constant stream of new products (nonfood as well as food items), have caused back-room and shelf space to become increasingly "tight." Supermarkets originally planned with adequate shelf space seem to have too little space within a few years.

Previously, retailers seemed able to cope with grocery inventory problems by memory and rule-of-thumb methods, because the number of items stocked was relatively small and the grocery manager had a more intimate knowledge of merchandise movement. This is no longer true; in many supermarkets today, the work is divided among a group of grocery clerks, and no one person has a picture of movement of all grocery items carried. Moreover, the keen competition and the profit margins on which retailers now operate make it hazardous to order and stock grocery items on the basis of hunch.

Inventory control for the retail operator is a fourfold problem: (1) Maintaining an inventory adequate to meet demand; (2) avoiding excessive inventories and stocks of items that may not be needed; (3) maintaining a balanced inventory (assortment keyed to consumer wants); and (4) holding shrinkage to a minimum (shortages from pilferage, deterioration of product, etc.). Clues to the proper size and kind of inventory lie in a continuing analysis of purchase and sales records of individual items in individual stores over a considerable period of time.

1/ This report is based, in part, on research conducted by Paul Wischkaemper and Martin Leiman and was prepared under the general direction of R. W. Hoecker, Head, Wholesaling and Retailing Section.

PURPOSE AND SCOPE OF THE STUDY

The purpose of this research was to study the use of order books in retail food stores as a means of developing data on the movement of items in the stores and thus to help the food retailers control grocery inventories. This report is primarily concerned with the quantitative aspect of inventory control--the maintenance of inventories adequate to satisfy consumer demand and the avoidance of excessive inventories and items. Effective control of inventories results in more efficient use of capital and of facilities and, consequently, contributes directly to lower marketing costs.

The study was focused on the order books because they are being used by an increasing number of wholesale food distributors who serve independent retailers and by central offices of corporate chains to help grocery managers keep informed about merchandise movement in their stores. Case studies were made on the order book systems of 8 such firms, whose volume of sales ranged from under $10 million to more than $100 million annually. Some firms had automatic data processing equipment and others did not.

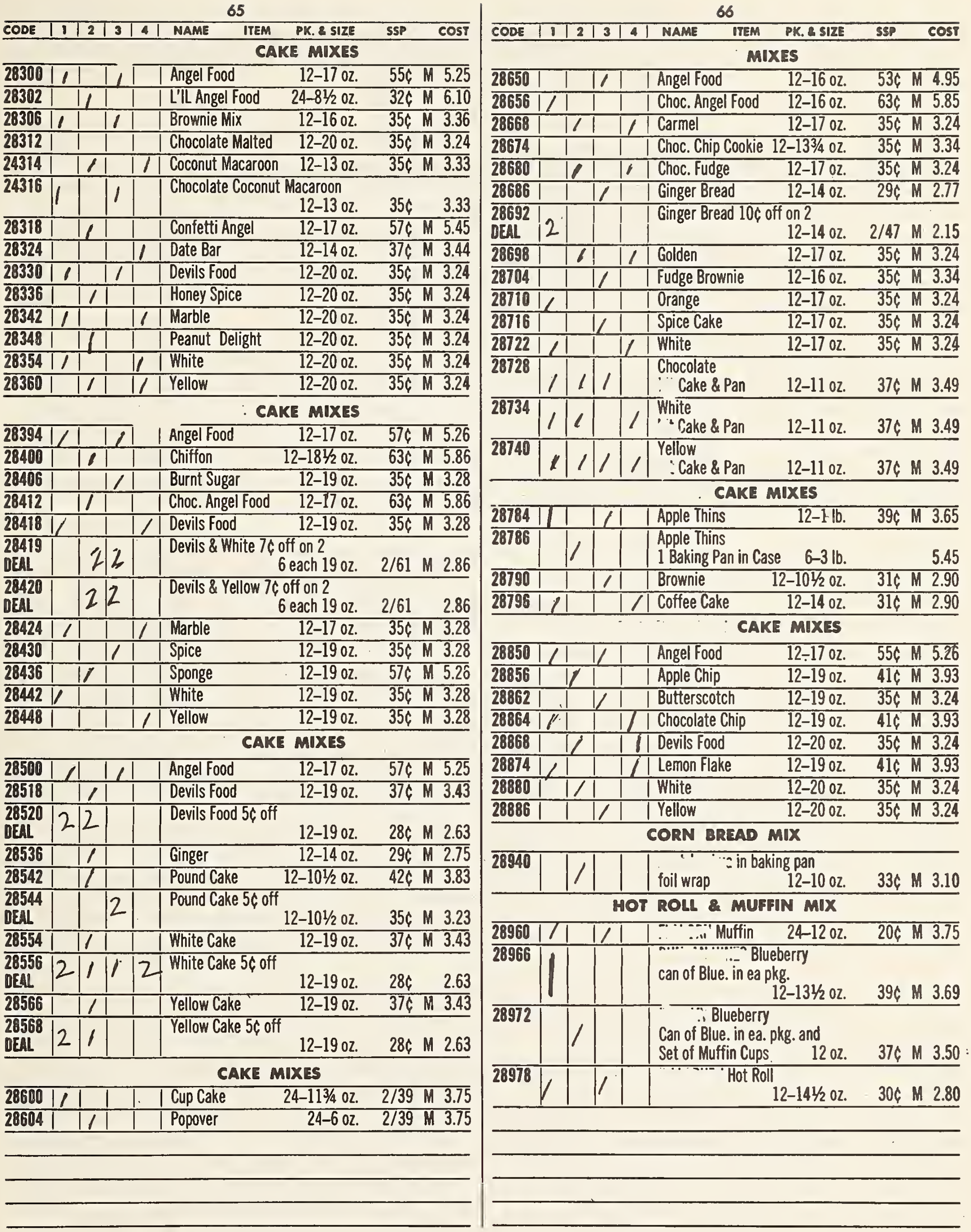
TYPES OF ORDER BOOKS DESIGNED FOR INVENTORY CONTROL

The various kinds of order books which have been developed to help retailers maintain better control over inventory have one common aim: To provide the retailer with a record of the movement of each item listed. In most cases this record is obtained through entries showing how frequently an item is ordered and in what quantities. In most systems it is assumed that receipts of merchandise will parallel sales and therefore the record of orders together with opening and closing inventories of merchandise in the back room will give a good measure of the item's movement for the time period involved.

Format of Order Books

Although each company studied has an order book that is designed for its own special needs, the format usually follows 1 of 2 patterns. One type is traditional in format but provides several columns for writing up the order so the book can be used for 2 or more weeks (fig. 1). The order is written up by entering the quantity wanted for each item in the column provided; the order book is sent to the warehouse, returned with the order, and used again by the grocer; he enters the next order in the next column provided. This may be called a multiple-trip order book since it shuttles back and forth between retailer and warehouse and is used for as many orders as columns are provided. Most frequently, this kind of book has space for 4 orders, although in a few instances 6 or 8 columns are provided.

The second basic type of order book designed to maintain a record of merchandise movement has 2 parts--a section similar to traditional order books with a description of the item and a second part on which a copy of the order is written. The order is written twice, once on the regular portion of the book to provide a record and again on the separate sheets or forms which are then detached and sent to the warehouse for processing. This type may be



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CODE	1	2	3	4	NAME ITEM	PK. & SIZE	SSP		COST
					CAKE MIXES				
28300	/		/		Angel Food	12–17 oz.	55¢	M	5.25
28302		/			L'IL Angel Food	24–8½ oz.	32¢	M	6.10
28306	/		/		Brownie Mix	12–16 oz.	35¢	M	3.36
28312					Chocolate Malted	12–20 oz.	35¢	M	3.24
24314		/		/	Coconut Macaroon	12–13 oz.	35¢	M	3.33
24316	/		/		Chocolate Coconut Macaroon	12–13 oz.	35¢		3.33
28318		/			Confetti Angel	12–17 oz.	57¢	M	5.45
28324				/	Date Bar	12–14 oz.	37¢	M	3.44
28330	/		/		Devils Food	12–20 oz.	35¢	M	3.24
28336		/			Honey Spice	12–20 oz.	35¢	M	3.24
28342	/			/	Marble	12–20 oz.	35¢	M	3.24
28348		/			Peanut Delight	12–20 oz.	35¢	M	3.24
28354	/			/	White	12–20 oz.	35¢	M	3.24
28360		/		/	Yellow	12–20 oz.	35¢	M	3.24
					CAKE MIXES				
28394	/		/		Angel Food	12–17 oz.	57¢	M	5.26
28400		/			Chiffon	12–18½ oz.	63¢	M	5.86
28406			/		Burnt Sugar	12–19 oz.	35¢	M	3.28
28412		/			Choc. Angel Food	12–17 oz.	63¢	M	5.86
28418	/			/	Devils Food	12–19 oz.	35¢	M	3.28
28419 DEAL		2	2		Devils & White 7¢ off on 2	6 each 19 oz.	2/61	M	2.86
28420 DEAL		2	2		Devils & Yellow 7¢ off on 2	6 each 19 oz.	2/61		2.86
28424	/			/	Marble	12–17 oz.	35¢	M	3.28
28430			/		Spice	12–19 oz.	35¢	M	3.28
28436		/			Sponge	12–19 oz.	57¢	M	5.26
28442	/				White	12–19 oz.	35¢	M	3.28
28448				/	Yellow	12–19 oz.	35¢	M	3.28
					CAKE MIXES				
28500	/		/		Angel Food	12–17 oz.	57¢	M	5.25
28518		/			Devils Food	12–19 oz.	37¢	M	3.43
28520 DEAL	2	2			Devils Food 5¢ off	12–19 oz.	28¢	M	2.63
28536		/			Ginger	12–14 oz.	29¢	M	2.75
28542		/			Pound Cake	12–10½ oz.	42¢	M	3.83
28544 DEAL			2		Pound Cake 5¢ off	12–10½ oz.	35¢	M	3.23
28554		/			White Cake	12–19 oz.	37¢	M	3.43
28556 DEAL	2	/	/	2	White Cake 5¢ off	12–19 oz.	28¢		2.63
28566		/			Yellow Cake	12–19 oz.	37¢	M	3.43
28568 DEAL	2	/			Yellow Cake 5¢ off	12–19 oz.	28¢	M	2.63
					CAKE MIXES				
28600	/				Cup Cake	24–11¾ oz.	2/39	M	3.75
28604		/			Popover	24–6 oz.	2/39	M	3.75

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CODE	1	2	3	4	NAME ITEM	PK. & SIZE	SSP		COST
					MIXES				
28650			/		Angel Food	12–16 oz.	53¢	M	4.95
28656	/				Choc. Angel Food	12–16 oz.	63¢	M	5.85
28668		/		/	Carmel	12–17 oz.	35¢	M	3.24
28674					Choc. Chip Cookie	12–13¾ oz.	35¢	M	3.34
28680		/		/	Choc. Fudge	12–17 oz.	35¢	M	3.24
28686			/		Ginger Bread	12–14 oz.	29¢	M	2.77
28692 DEAL	2				Ginger Bread 10¢ off on 2	12–14 oz.	2/47	M	2.15
28698		/		/	Golden	12–17 oz.	35¢	M	3.24
28704			/		Fudge Brownie	12–16 oz.	35¢	M	3.34
28710	/				Orange	12–17 oz.	35¢	M	3.24
28716			/		Spice Cake	12–17 oz.	35¢	M	3.24
28722	/			/	White	12–17 oz.	35¢	M	3.24
28728	/	/	/		Chocolate Cake & Pan	12–11 oz.	37¢	M	3.49
28734	/	/		/	White Cake & Pan	12–11 oz.	37¢	M	3.49
28740	/	/	/	/	Yellow Cake & Pan	12–11 oz.	37¢	M	3.49
					CAKE MIXES				
28784	/		/		Apple Thins	12–1 lb.	39¢	M	3.65
28786		/			Apple Thins 1 Baking Pan in Case	6–3 lb.			5.45
28790			/		Brownie	12–10½ oz.	31¢	M	2.90
28796	/			/	Coffee Cake	12–14 oz.	31¢	M	2.90
					CAKE MIXES				
28850	/		/		Angel Food	12–17 oz.	55¢	M	5.26
28856		/			Apple Chip	12–19 oz.	41¢	M	3.93
28862			/		Butterscotch	12–19 oz.	35¢	M	3.24
28864	/			/	Chocolate Chip	12–19 oz.	41¢	M	3.93
28868		/		/	Devils Food	12–20 oz.	35¢	M	3.24
28874	/			/	Lemon Flake	12–19 oz.	41¢	M	3.93
28880		/			White	12–20 oz.	35¢	M	3.24
28886			/		Yellow	12–20 oz.	35¢	M	3.24
					CORN BREAD MIX				
28940		/			in baking pan foil wrap	12–10 oz.	33¢	M	3.10
					HOT ROLL & MUFFIN MIX				
28960	/		/		Muffin	24–12 oz.	20¢	M	3.75
28966	/				Blueberry can of Blue. in ea pkg.	12–13½ oz.	39¢	M	3.69
28972		/			Blueberry Can of Blue. in ea. pkg. and Set of Muffin Cups	12 oz.	37¢	M	3.50
28978	/		/		Hot Roll	12–14½ oz.	30¢	M	2.80

Figure 1.--Example of grocery order book with 4 columns for writing up 4 orders.

called a double-listing order book since it requires the order to be listed twice. Because the record is maintained on a separate portion of the order book and need not be sent back and forth with the orders, this format usually provides space to record orders for 6 to 13 weeks.

With the latter type of order book, the form on which the order is sent to the warehouse varies considerably. In some books it consists of narrow tear sheets or strips on which each item is identified only by code number; the code numbers are listed in the same sequence as in the order book, which remains with the retailer. The quantity of each item ordered is entered by the grocer in the space beside the code, and the tear sheets are forwarded to the warehouse. This system usually provides space for recording 4 orders and has the accompanying number of tear strips (fig. 2).

Another procedure uses listing sheets. The order is recorded in the master book and then transcribed onto the listing sheets, which are sent to the warehouse. Some listing sheets include a code number for every item in the order book and only the number of cases wanted are entered in the space provided beside the code number. Other listing sheets are organized with blank spaces under code number headings, and the complete code number, as well as the quantity wanted, is written in where appropriate.

Still another variation is the use of cards; the grocery order is made up by marking cards instead of tear strips. The system is referred to as the "card order plan" and the cards as mark-sense cards since they are marked with a special pencil which permits them to be used directly with automatic processing equipment. Under this system a pack of mark-sense cards are used each time an order is made up (fig. 3). The order is written into the store's order book and the quantities of each item wanted are marked on the card; each card is marked on front and back and accommodates 38 items. The marked cards are then forwarded to the warehouse for processing. This procedure assumes an installation of data processing equipment. The mark-sense pack feeds directly into the automatic machinery to initiate the several steps of order processing through the office and warehouse. The procedure eliminates the need for key punching as well as tub-file pulling; one marked card is used to make up the other cards for order processing. The punch card is made up in the warehouse for each item marked. A new set of mark-sense cards is sent to the retailer for each order; the pack is inserted in the master order book so that code numbers of the items on the cards are matched with the items in the order book.

A few grocery wholesalers have put code letters on the order books indicating the rate of warehouse movement of each item for their group of affiliated stores. The code letters indicate "fast," "slow," or "moderate" movement. The actual rate of movement is determined by dividing the total sales of the item at wholesale by the number of stores served. When the codes are based on average weekly movement, the movement rate is obtained by dividing total sales by the number of weeks in a given period. (If there are considerable differences in the size of stores served by a wholesaler, movement of items in the smaller outlets should be computed and listed separately from movement codes for the supermarkets.) The system of designating warehouse movement does not take the place of information on item movement in the store that the retailer obtains by using the order book. The information on

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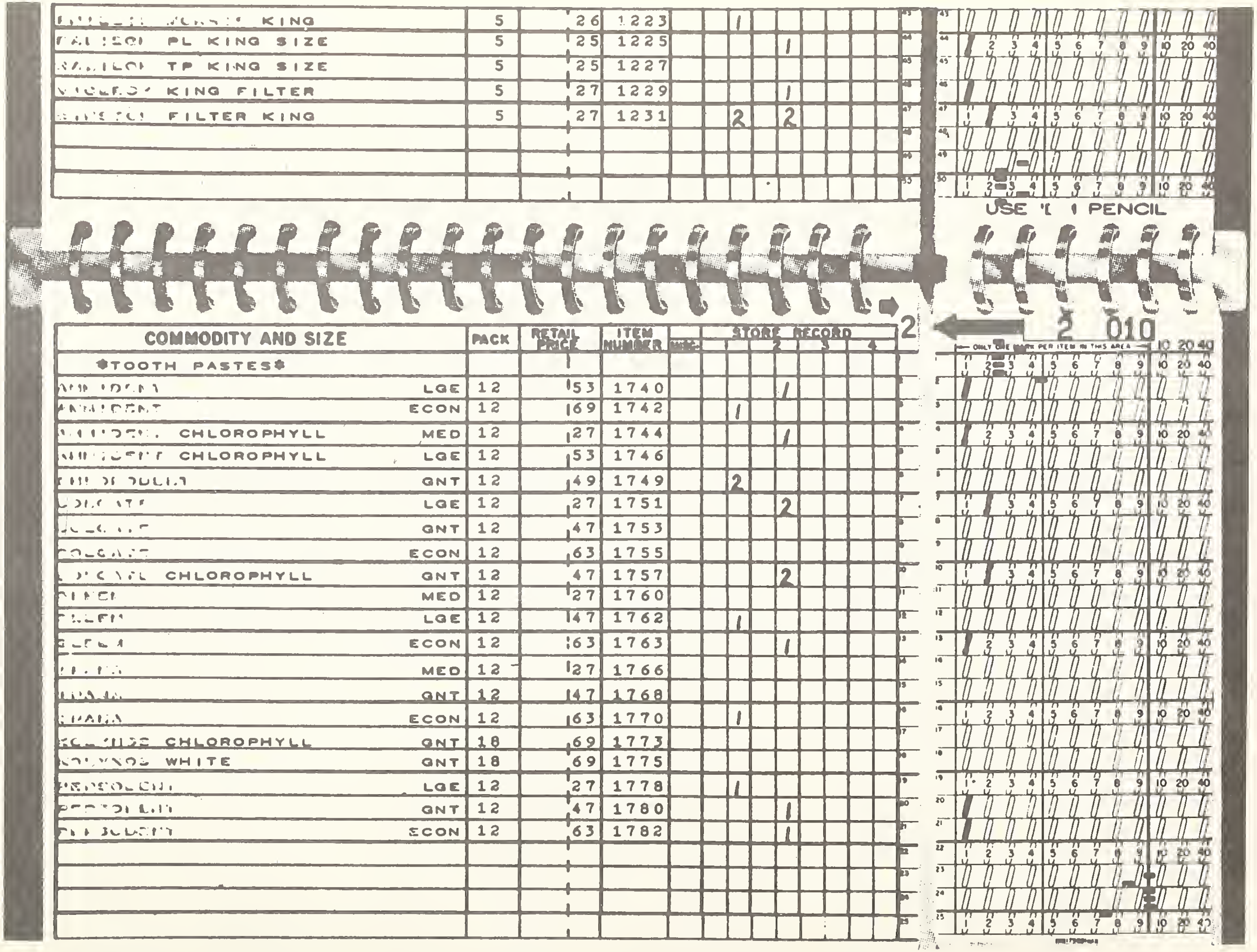
DESCRIPTION		SRP	1	2	3	4	4	3	2	1
18S	- INSTANT	.29					____3026	____3026	____3026	____3026
18S	- REGULAR	.29					____3028	____3028	____3028	____3028
18/1-3/4#		.31					____3022	____3022	____3022	____3022
12/22 OZ.		.35					____3036	____3036	____3036	____3036
24/10½		2/43					____3053	____3053	____3053	____3053
24/14½		.27					____3054	____3054	____3054	____3054
12/18 OZ.		.28					____3068	____3068	____3068	____3068
12/12 OZ.		.22					____3067	____3067	____3067	____3067
12/12 OZ.		.26					____3056	____3056	____3056	____3056
12S		.35					____3071	____3071	____3071	____3071
12/14½	40 PERCENT	.27					____3060	____3060	____3060	____3060
24/11 OZ.		.35					____3057	____3057	____3057	____3057
12/22 OZ.		.35					____3065	____3065	____3065	____3055
24/9½		.25					____3073	____3073	____3073	____3073
12/8/1 OZ.		.27					____3079	____3079	____3079	____3079
12/8½		.25					____3077	____3077	____3077	____3077
12/14 OZ.		.27					____3066	____3066	____3066	____3066
12/10 OZ.		.25					____3074	____3074	____3074	____3074
12/6 OZ.		.27					____3078	____3078	____3078	____3078
18/15 OZ.		.35					____3090	____3090	____3090	____3090
24/7 OZ.		.18					____3092	____3092	____3092	____3092
24/10½		.24					____3094	____3094	____3094	____3094
24/10 OZ.		.24					____3097	____3097	____3097	____3097
24/9 OZ.		.24					____3096	____3096	____3096	____3096
18/18 OZ.		.35					____3089	____3089	____3089	____3089
24/8 OZ.		.18					____3098	____3098	____3098	____3098
24/12 OZ.		.24					____3099	____3099	____3099	____3099
24/8½ II		.24					____3095	____3095	____3095	____3095
12/9½		.37					____3091	____3091	____3091	____3091
36/8 OZ.		.17					____3106	____3106	____3106	____3106
24/8 OZ.		.17					____3107	____3107	____3107	____3107
36/12 OZ.		.22					____3116	____3116	____3116	____3116
24/18 OZ.		2/55					____3115	____3115	____3115	____3115
24/12 OZ.		.22					____3114	____3114	____3114	____3114
12/8 OZ.		.27					____3108	____3108	____3108	____3108
12/10 OZ.		.20					____3120	____3120	____3120	____3120
24/12 OZ		.19					____3128	____3128	____3128	____3128

Figure 2.--Example of grocery order book with 4 tear strips.



		PACK	RETAIL PRICE	ITEM NUMBER	STORE RECORD 1	2	3	4
[illegible] KING		5	26	1223	/			
[illegible] PL KING SIZE		5	25	1225		/		
[illegible] TP KING SIZE		5	25	1227				
[illegible] KING FILTER		5	27	1229		/		
[illegible] FILTER KING		5	27	1231	2	2		

COMMODITY AND SIZE		PACK	RETAIL PRICE	ITEM NUMBER	STORE RECORD 1	2	3	4
TOOTH PASTES								
[illegible]	LGE	12	53	1740		/		
[illegible]	ECON	12	69	1742	/			
[illegible] CHLOROPHYLL	MED	12	27	1744		/		
[illegible] CHLOROPHYLL	LGE	12	53	1746				
[illegible]	GNT	12	49	1749	2			
[illegible]	LGE	12	27	1751		2		
[illegible]	GNT	12	47	1753				
[illegible]	ECON	12	63	1755				
[illegible] CHLOROPHYLL	GNT	12	47	1757		2		
[illegible]	MED	12	27	1760				
[illegible]	LGE	12	47	1762	/			
[illegible]	ECON	12	63	1763		/		
[illegible]	MED	12	27	1766				
[illegible]	GNT	12	47	1768				
[illegible]	ECON	12	63	1770	/			
[illegible] CHLOROPHYLL	GNT	18	69	1773				
[illegible] WHITE	GNT	18	69	1775				
[illegible]	LGE	12	27	1778	/			
[illegible]	GNT	12	47	1780		/		
[illegible]	ECON	12	63	1782		/		

Figure 3.--Example of grocery order book using cards instead of tear strips for marking up orders. (Courtesy of IBM)

warehouse movement can supplement his own records, or give him some help if he does not maintain records on movement in his store.

Procedures for Processing Orders and Invoicing

Preparation of the grocery order by the retailer is the first stage in a series of activities leading to delivery of the merchandise to the store and invoicing the retailer for it. Differences in these procedures result more from the presence or absence of automatic processing equipment than from the format of the order book. In warehouses where automatic equipment is not used, the order form or listing sheets are usually recopied by hand at the warehouse, with the forms used in assembling the orders and the invoices being prepared at the same time. Warehouses handling orders in this fashion often service smaller accounts or take care of only a portion of the large retailer's grocery purchases, and therefore, the number of items listed in any order may be relatively small. If the order book is used for a number of weeks, it is forwarded to the retailer together with the invoice when the merchandise is delivered. 2/

If automatic equipment is used, order processing and invoicing follow one of several standard practices. In the most common procedure the order is received at the warehouse office; prepunched cards corresponding to the items listed on the order are assembled from a file and processed together with master cards containing information about the store. These operations result in an order pick form, a store invoice form, and record form(s) for warehouse accounting and inventory control purposes. The invoice is corrected for out-of-stock items and usually goes to the retailer with the merchandise. The current warehouse price and/or the retail price is given on the invoice, and the merchandise is usually price-marked from the invoice. The processing of orders is essentially the same through automatic accounting machinery whether the order book is designed to help retailers control inventories or not.

Handling Price Changes

When order books are used for maintaining records of grocery purchases for a period of 4 to 13 weeks, price changes occur for some items during the period between printings. Thus, it is necessary to use means other than the order book to inform retailers regarding current prices. The procedure is different in almost every system studied. In all systems, however, memoranda announcing price changes are issued from the warehouse as they occur, usually one or more times a week, and the retailer is responsible for making changes in the book that he uses as a guide in price marking.

If the basic order book is kept for 8 to 13 weeks, price changes cannot be recorded directly into the book, because it would be difficult to provide adequate space for items that might require several price changes during the period. Instead, up-to-date pricing is usually maintained in a second book.

2/ A detailed account of office procedures and invoicing among wholesale food distributors is now being written.

In one firm studied this was in the form of a price book issued biweekly, supplemented by memoranda on price changes occurring in the 2-week period. Interim changes are entered in the price book and merchandise is price-marked from it.

In another case in which a wholesaler has 2 books (and operates without automatic processing equipment), the second book is used as an invoice for the merchandise delivered, and any price changes for the merchandise are recorded in it at the time the order is extended and invoiced. Again, price-marking is done from the second book, and retailers are notified by special memoranda of price changes that occur between orders.

USING THE INFORMATION PROVIDED BY INVENTORY CONTROL ORDER BOOKS

The information on movement of merchandise obtained from the order book is used in a number of ways. First, it is used to help guide the grocer in placing his orders; second, it is used in allocating shelf space; and third, it points out items which might be discontinued.

In Placing Grocery Orders

Many grocery managers believe that they know how well every item they carry sells. They place orders for merchandise on the basis of this knowledge, together with a periodic check of merchandise on the shelves or in the back room. The order books studied provide information that help make this knowledge more precise. Where such order books have been in use, grocers have commented that the information on slow-moving items is helpful. In almost every instance, grocers have said that the record of merchandise movement maintained as part of the ordering system is a better guide to ordering than their estimates have been. For example, in a study of 9 independent retail food stores considered to be well managed, it was found that 29 percent of the items in all stores had sales of 10 units or less during a 4-week period and in 4 of the stores over half the items carried had sales of 10 units or less during this period. 3/

The record of the movement of merchandise also helps the grocer to decide whether to accept an item in large quantities when special deals or discounts are provided by the manufacturer. Grocers often are reluctant to turn down a quantity deal even on relatively slow-moving items because they cannot refute a salesman's claims on how soon they will sell the quantity to be ordered. The record of movement gives the grocer the evidence upon which to say "yes" or "no." While many factors, such as season, availability of storage space, and frequency of delivery, may affect the grocer's decision, he will take into account the likely sales during the ensuing weeks, if he has such information.

3/ Browner, V. I., and Pauli, Hans. Space Allocation for Grocery Items in Food Stores. U. S. Dept. Agr. Mktg. Res. Rpt. 80, 22 pp., illus. February 1955.

In Allocating Shelf Space

The information on movement of merchandise in the order book is also used by the grocery manager in allocating shelf space. Recognizing the significance of turnover, more and more retailers are allocating space in accordance with actual sales of the merchandise. Of course, movement is not the sole criterion for space allocation for every item. Many retailers believe that every item they carry requires at least a 2-row facing and that enough space should be given to permit stocking a full case of an item even when there are still 6 to 12 units on the shelf. Thus, they define a minimum display as space for 1½ cases of an item. If these factors set the minimum display level for an item, then the remaining space should be allocated systematically to the items that sell more than the minimum so as to maximize their display and decrease stocking costs. Information on movement of merchandise is used in establishing whether items should be given "minimum" or "maximum" shelf space, or something in between.

In Discontinuing Items

Perhaps the most important value of the order book records on movement of merchandise is the evidence collected on items which move very slowly. An analysis of movement of items by commodity line identifies the items which sell so infrequently as to raise the question whether they should be stocked. This does not mean that every item which sells less than a certain number of units each week is automatically discontinued by the retailers. However, each such item must be justified on its contribution to the department's profitability or customers' satisfaction, or both. With the constant pressure to add new items in existing lines and to add new groups of products, there is continuous need to consider what items can be discontinued to make room for others that may sell better.

The decision to discontinue unnecessary grocery items is motivated by different considerations. For example, a new price or quality line of groceries is to be introduced, or a new ice cream or frozen food cabinet is to be brought in, and the retailer decides that the space for these additions is to be obtained by reducing space for grocery items currently carried. With this purpose in mind, the retailer culls out as many slow-moving or duplicate items as necessary to accommodate the new line or cabinet. On the other hand, his concern may be simply to weed out items that contribute least to the department's profits and customers' choice in order to make better use of selling space.

The retailer's decision on which items to discontinue is not made solely on the basis of which item brings the least margin, or has the slowest movement in the section, but on which item adds least to overall store profitability and to customers' choice. Of course many special circumstances may also need to be taken into account in the final decision, such as special supplier or brand considerations, the preferences of a few important customers, the alternative uses of any space saved.

The use of order books for inventory control purposes is simplified when there is only one supplier or very few suppliers. Moreover, any list of items supplied by a wholesaler will include some slow movers, and if the retailer is able to analyze only one list, he may delete slow movers from it without taking into account the movement of similar items of other suppliers in the order book. A program of analyzing the movement of merchandise should include items and brands that the retailer purchases from all suppliers.

MAINTAINING RECORDS WITH GROCERY ORDER BOOKS

There are two problems in using order books to control inventories. First, obtaining the information needed for decisions on grocery inventories and, second, keeping to a minimum the amount of work involved in getting this information. The kind of information needed is suggested by the uses described on previous pages, but several questions remain: How precise should the records be for individual items? Is it necessary to take physical inventories of merchandise on shelves, as well as in the back room, in order to obtain useful information on the movement of items? For how many weeks must records be maintained to know what an item's weekly sales are likely to be?

Some of the wholesale food distributors studied have developed procedures for obtaining the necessary information from the order books without taking a physical count of shelf stock. One wholesaler had designed an order book in which his retailers maintained records in 8-week periods. They took inventories only of merchandise in the back room and assumed that shelf stock would be about the same at the beginning of the period as at the end. For items which had back-room stock, movement was determined by adding receipts to the inventory at the beginning of the period and subtracting the inventory at the end of the period. The result was divided by 8 to obtain average weekly movement.

The procedure seems to have possibilities for all except slow-moving items. For relatively fast-moving items, changes in shelf inventory compared with total movement would be relatively unimportant for a period of 8 weeks. For slow-moving items--those which sell only a few units a week--records for 2 periods of 8 weeks each would probably be necessary to determine approximate sales. Then, if further information were needed to help decide which slow-moving items, among alternatives, might be dropped, records for three or four 8-week periods would be combined and studied. To permit retailers to analyze records for 2 or more periods, these record books provide space next to the description of each item for carrying forward information from previous order books; the retailer posts total sales or average weekly sales for the items in the column provided.

Several companies have reduced the work of carrying information forward from one record book to another by using a 13-week record form. Most slow-moving items can be identified by a record of 13 weeks' sales, and 2 such records, representing a half year's movement, are more than adequate for decisions on dropping slow-moving items. The order books which use a 13-week record form also give the retailer a better picture of movement over a continuous period of time, and hence, are a better guide for week-to-week ordering than a 6- or 8-week order book.

Two of the firms studied use an order book which provides space for recording weekly back-room inventories, as well as orders placed for each item. The order books are designed with a diagonal line in each box where ordered items are listed (fig. 4). Back-room inventories in cases (and half cases) are listed in the upper half of the box, and orders placed are listed in the lower half. This provides a record of week-to-week movement, and orders can quickly be adjusted when inventories have accummulated or have been depleted during the week. The weekly listing of back-room inventories is an aid in ordering, though it does not contribute additional information for allocating display space.

CONCLUSIONS AND GENERAL APPLICATIONS

Opinions among retailers interviewed who have had order books designed for controlling inventories varied considerably; the opinions were generally favorable among retailers who used the order books properly; others said the order books had little value. Some conclusions drawn from the study follow.

Maintaining the Necessary Records on Merchandise Movement

Although it is the retailer's responsibility to maintain records on the movement of items, his work can be facilitated by the kind of order book he is given. The study suggests that a 12- or 13-week record book with some form of detachable sheets for ordering has several advantages over the systems which record orders for 8 or less weeks. See figure 5 for an example of this kind of order book. 4/ Among the advantages are: (1) The retailer can see the orders he has placed for the longer period of time and, hence, has a better

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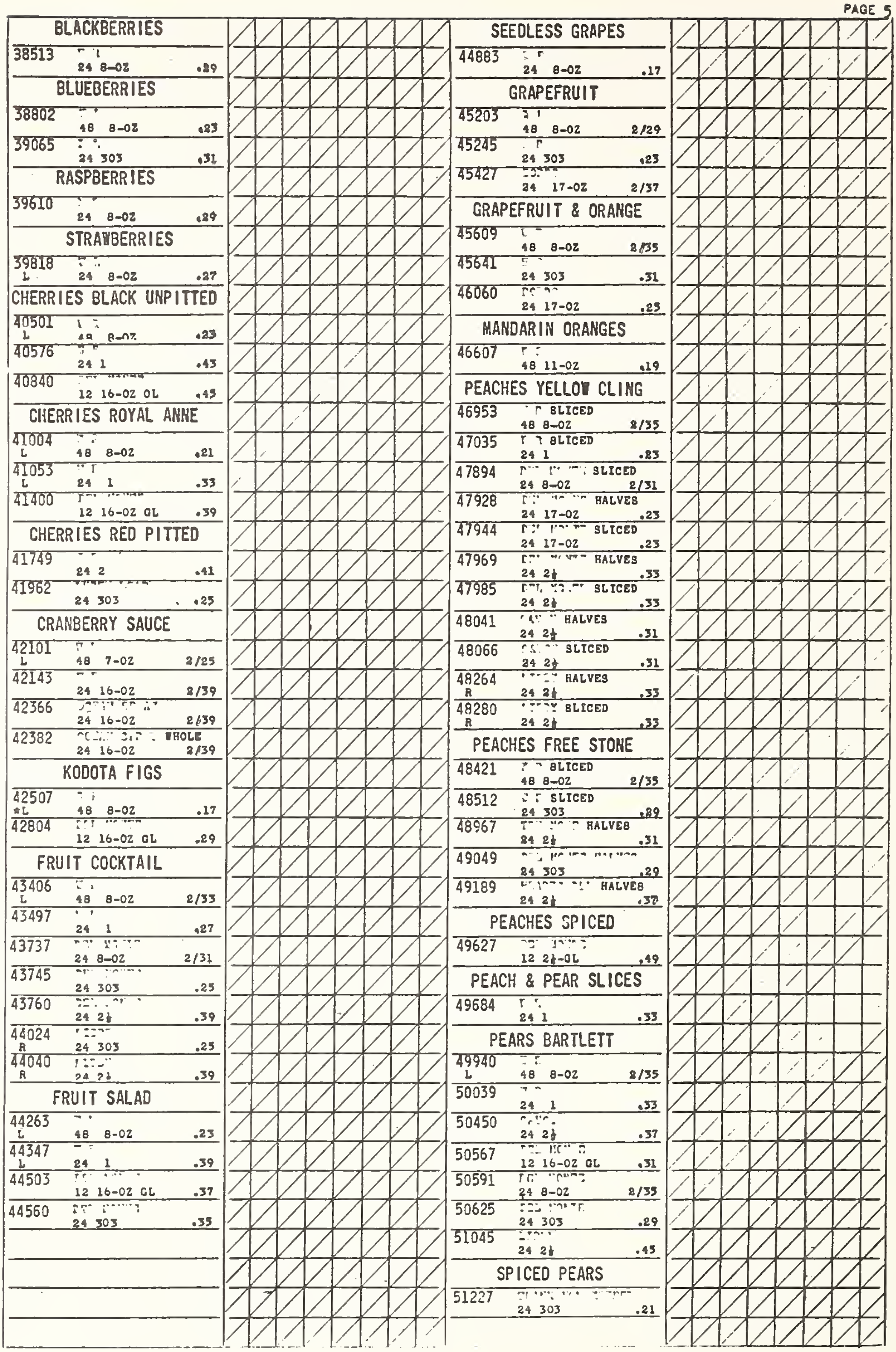
4/ The order book form illustrated in figure 5 combines a record of inventories on reserve, orders placed, and listing sheets for 4 orders. If orders are placed or written once a week, the record, together with refills of listing sheets, will cover a 13-week period. A 5-order refill is suggested for the last period in the quarter so that a new record book and new listing sheets may be supplied at the beginning of each quarter. If orders are placed oftener than once a week, the record, with additional listing sheets, will cover 13 consecutive ordering periods.

A column is provided to indicate the number of rows that each item should have on the display shelf. This number is entered in the record book at the beginning of each quarter, and is based on the record of movement for the item in the previous quarter (and any special merchandising consideration the individual retailer may have).

The book in which the movement record is maintained should be designed to accommodate the new order listing sheets and to assure that the code numbers on the listing sheets are aligned with the item descriptions. If the book is to be used by small retailers, who order relatively few items each week, it will probably be more convenient to design separate order listing sheets for each order. This kind of order form (as described on page 6 of this report) need not be integrated with the book containing the record on item movement.



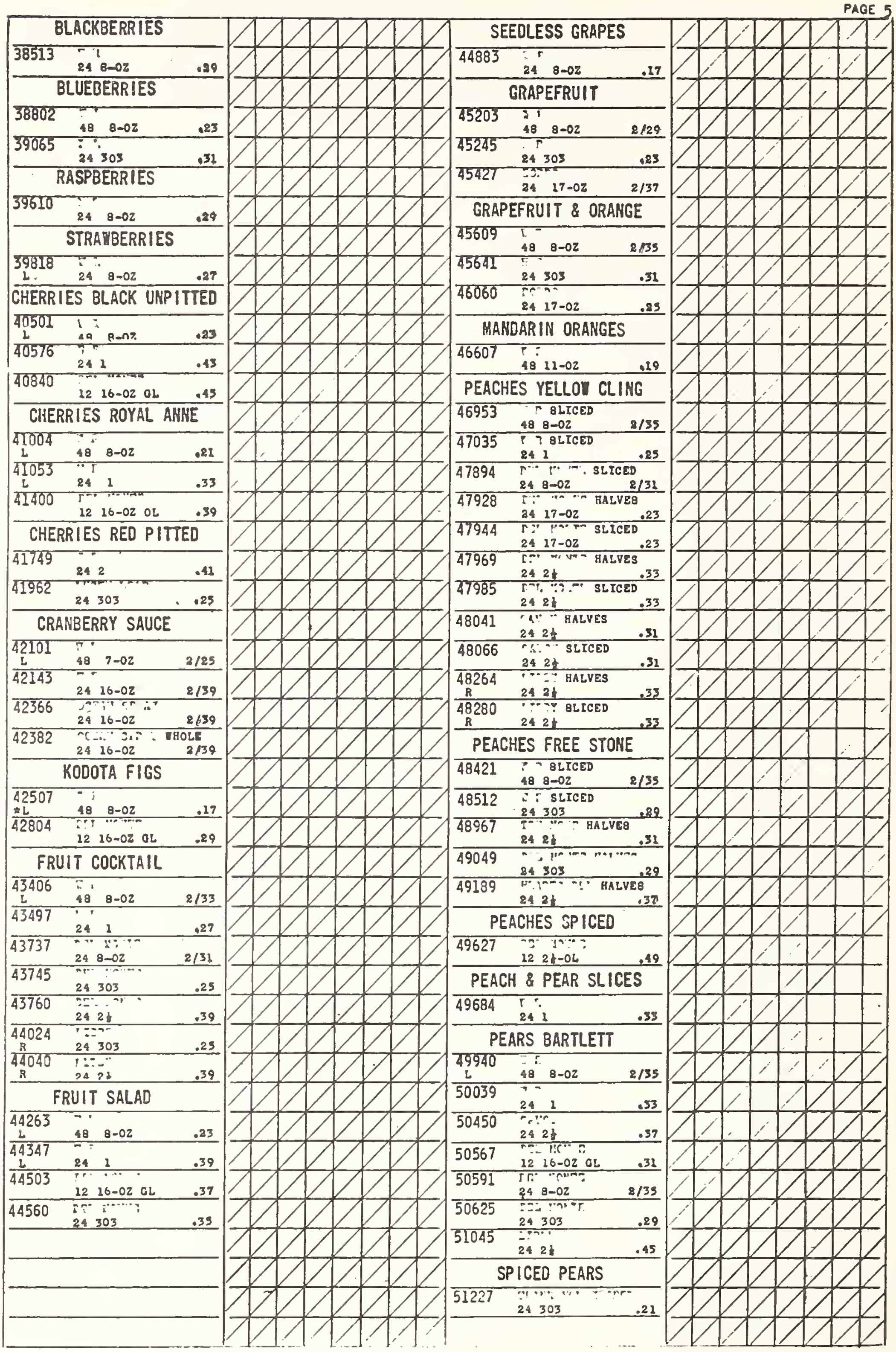
PAGE 5

BLACKBERRIES				
38513		[illegible]	24 8-OZ	.29
BLUEBERRIES				
38802		[illegible]	48 8-OZ	.23
39065		[illegible]	24 303	.31
RASPBERRIES				
39610		[illegible]	24 8-OZ	.29
STRAWBERRIES				
39818	L	[illegible]	24 8-OZ	.27
CHERRIES BLACK UNPITTED				
40501	L	[illegible]	48 8-OZ	.23
40576		[illegible]	24 1	.43
40840		[illegible]	12 16-OZ OL	.45
CHERRIES ROYAL ANNE				
41004	L	[illegible]	48 8-OZ	.21
41053	L	[illegible]	24 1	.33
41400		[illegible]	12 16-OZ GL	.39
CHERRIES RED PITTED				
41749		[illegible]	24 2	.41
41962		[illegible]	24 303	.25
CRANBERRY SAUCE				
42101	L	[illegible]	48 7-OZ	2/25
42143		[illegible]	24 16-OZ	2/39
42366		[illegible]	24 16-OZ	2/39
42382		[illegible] WHOLE	24 16-OZ	2/39
KODOTA FIGS				
42507	*L	[illegible]	48 8-OZ	.17
42804		[illegible]	12 16-OZ GL	.29
FRUIT COCKTAIL				
43406	L	[illegible]	48 8-OZ	2/33
43497		[illegible]	24 1	.27
43737		[illegible]	24 8-OZ	2/31
43745		[illegible]	24 303	.25
43760		[illegible]	24 2½	.39
44024	R	[illegible]	24 303	.25
44040	R	[illegible]	24 2½	.39
FRUIT SALAD				
44263	L	[illegible]	48 8-OZ	.23
44347	L	[illegible]	24 1	.39
44503		[illegible]	12 16-OZ GL	.37
44560		[illegible]	24 303	.35

SEEDLESS GRAPES				
44883		[illegible]	24 8-OZ	.17
GRAPEFRUIT				
45203		[illegible]	48 8-OZ	2/29
45245		[illegible]	24 303	.23
45427		[illegible]	24 17-OZ	2/37
GRAPEFRUIT & ORANGE				
45609		[illegible]	48 8-OZ	2/35
45641		[illegible]	24 303	.31
46060		[illegible]	24 17-OZ	.25
MANDARIN ORANGES				
46607		[illegible]	48 11-OZ	.19
PEACHES YELLOW CLING				
46953		[illegible] SLICED	48 8-OZ	2/35
47035		[illegible] SLICED	24 1	.23
47894		[illegible] SLICED	24 8-OZ	2/31
47928		[illegible] HALVES	24 17-OZ	.23
47944		[illegible] SLICED	24 17-OZ	.23
47969		[illegible] HALVES	24 2½	.33
47985		[illegible] SLICED	24 2½	.33
48041		[illegible] HALVES	24 2½	.31
48066		[illegible] SLICED	24 2½	.31
48264	R	[illegible] HALVES	24 2½	.33
48280	R	[illegible] SLICED	24 2½	.33
PEACHES FREE STONE				
48421		[illegible] SLICED	48 8-OZ	2/35
48512		[illegible] SLICED	24 303	.29
48967		[illegible] HALVES	24 2½	.31
49049		[illegible]	24 303	.29
49189		[illegible] HALVES	24 2½	.37
PEACHES SPICED				
49627		[illegible]	12 2½-GL	.49
PEACH & PEAR SLICES				
49684		[illegible]	24 1	.33
PEARS BARTLETT				
49940	L	[illegible]	48 8-OZ	2/35
50039		[illegible]	24 1	.33
50450		[illegible]	24 2½	.37
50567		[illegible]	12 16-OZ GL	.31
50591		[illegible]	24 8-OZ	2/35
50625		[illegible]	24 303	.29
51045		[illegible]	24 2½	.45
SPICED PEARS				
51227		[illegible]	24 303	.21

Figure 4.--Example of order book for recording weekly inventories and orders. (This form is used in conjunction with separate listing sheets on which the orders are written and forwarded to the warehouse.)

PAGE 5



BLACKBERRIES			
38513		24 8-OZ	.29
BLUEBERRIES			
38802		48 8-OZ	.23
39065		24 303	.31
RASPBERRIES			
39610		24 8-OZ	.29
STRAWBERRIES			
39818	L	24 8-OZ	.27
CHERRIES BLACK UNPITTED			
40501	L	48 8-OZ	.23
40576		24 1	.43
40840		12 16-OZ GL	.45
CHERRIES ROYAL ANNE			
41004	L	48 8-OZ	.21
41053	L	24 1	.33
41400		12 16-OZ GL	.39
CHERRIES RED PITTED			
41749		24 2	.41
41962		24 303	.25
CRANBERRY SAUCE			
42101	L	48 7-OZ	2/25
42143		24 16-OZ	2/39
42366		24 16-OZ	2/39
42382		WHOLE 24 16-OZ	2/39
KODOTA FIGS			
42507	*L	48 8-OZ	.17
42804		12 16-OZ GL	.29
FRUIT COCKTAIL			
43406	L	48 8-OZ	2/33
43497		24 1	.27
43737		24 8-OZ	2/31
43745		24 303	.25
43760		24 2½	.39
44024	R	24 303	.25
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FRUIT SALAD			
44263	L	48 8-OZ	.23
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GRAPEFRUIT & ORANGE			
45609		48 8-OZ	2/35
45641		24 303	.31
46060		24 17-OZ	.25
MANDARIN ORANGES			
46607		48 11-OZ	.19
PEACHES YELLOW CLING			
46953		SLICED 48 8-OZ	2/35
47035		SLICED 24 1	.25
47894		SLICED 24 8-OZ	2/31
47928		HALVES 24 17-OZ	.23
47944		SLICED 24 17-OZ	.23
47969		HALVES 24 2½	.33
47985		SLICED 24 2½	.33
48041		HALVES 24 2½	.31
48066		SLICED 24 2½	.31
48264	R	HALVES 24 2½	.33
48280	R	SLICED 24 2½	.33
PEACHES FREE STONE			
48421		SLICED 48 8-OZ	2/35
48512		SLICED 24 303	.29
48967		HALVES 24 2½	.31
49049		24 303	.29
49189		HALVES 24 2½	.37
PEACHES SPICED			
49627		12 2½-OL	.49
PEACH & PEAR SLICES			
49684		24 1	.33
PEARS BARTLETT			
49940	L	48 8-OZ	2/35
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50567		12 16-OZ GL	.31
50591		24 8-OZ	2/35
50625		24 303	.29
51045		24 2½	.45
SPICED PEARS			
51227		24 303	.21

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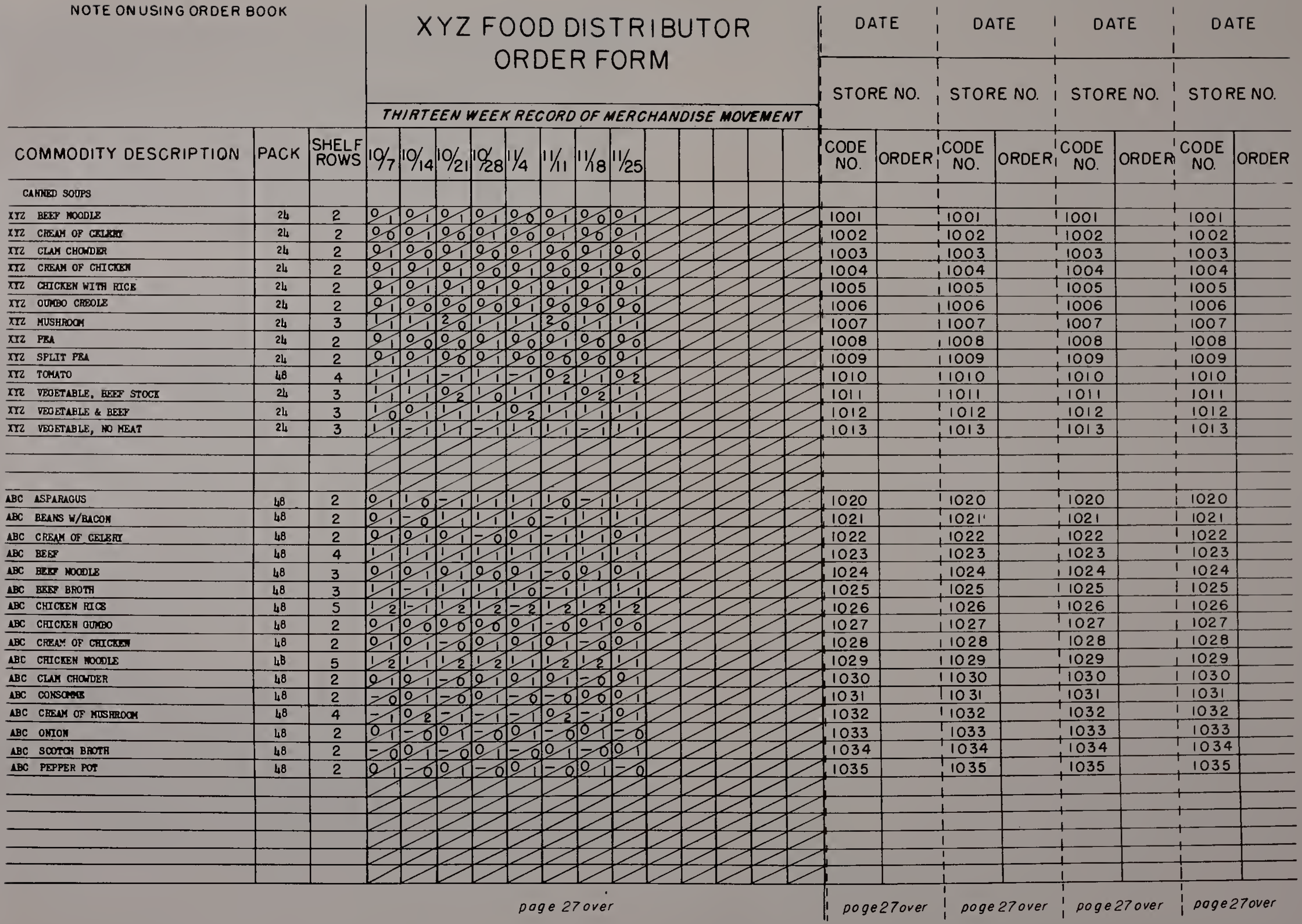

NOTE ON USING ORDER BOOK

XYZ FOOD DISTRIBUTOR
ORDER FORM

			THIRTEEN WEEK RECORD OF MERCHANDISE MOVEMENT													DATE		DATE		DATE		DATE	
																STORE NO.		STORE NO.		STORE NO.		STORE NO.	
COMMODITY DESCRIPTION	PACK	SHELF ROWS	10/7	10/14	10/21	10/28	11/4	11/11	11/18	11/25						CODE NO.	ORDER	CODE NO.	ORDER	CODE NO.	ORDER	CODE NO.	ORDER
CANNED SOUPS																							
XYZ BEEF NOODLE	24	2	0/1	0/1	0/1	0/1	0/0	0/1	0/0	0/1						1001		1001		1001		1001	
XYZ CREAM OF CELERY	24	2	0/0	0/1	0/0	0/1	0/0	0/1	0/0	0/1						1002		1002		1002		1002	
XYZ CLAM CHOWDER	24	2	0/1	0/0	0/1	0/0	0/1	0/0	0/1	0/0						1003		1003		1003		1003	
XYZ CREAM OF CHICKEN	24	2	0/1	0/1	0/1	0/0	0/1	0/0	0/1	0/0						1004		1004		1004		1004	
XYZ CHICKEN WITH RICE	24	2	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1						1005		1005		1005		1005	
XYZ GUMBO CREOLE	24	2	0/1	0/0	0/0	0/0	0/1	0/0	0/0	0/0						1006		1006		1006		1006	
XYZ MUSHROOM	24	3	1/1	1/1	2/0	1/1	1/1	2/0	1/1	1/1						1007		1007		1007		1007	
XYZ PEA	24	2	0/1	0/0	0/0	0/1	0/0	0/1	0/0	0/0						1008		1008		1008		1008	
XYZ SPLIT PEA	24	2	0/1	0/1	0/0	0/1	0/0	0/0	0/0	0/1						1009		1009		1009		1009	
XYZ TOMATO	48	4	1/1	1/1	–/1	1/1	–/1	0/2	1/1	0/2						1010		1010		1010		1010	
XYZ VEGETABLE, BEEF STOCK	24	3	1/1	1/1	0/2	1/0	1/1	1/1	0/2	1/1						1011		1011		1011		1011	
XYZ VEGETABLE & BEEF	24	3	1/0	0/1	1/1	1/1	0/2	1/1	1/1	1/1						1012		1012		1012		1012	
XYZ VEGETABLE, NO MEAT	24	3	1/1	–/1	1/1	–/1	1/1	1/1	–/1	1/1						1013		1013		1013		1013	
ABC ASPARAGUS	48	2	0/1	1/0	–/1	1/1	1/1	1/0	–/1	1/1						1020		1020		1020		1020	
ABC BEANS W/BACON	48	2	0/1	–/0	1/1	1/1	1/0	–/1	1/1	1/1						1021		1021		1021		1021	
ABC CREAM OF CELERY	48	2	0/1	0/1	0/1	–/0	0/1	–/1	1/1	0/1						1022		1022		1022		1022	
ABC BEEF	48	4	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1						1023		1023		1023		1023	
ABC BEEF NOODLE	48	3	0/1	0/1	0/1	0/0	0/1	–/0	0/1	0/1						1024		1024		1024		1024	
ABC BEEF BROTH	48	3	1/1	–/1	1/1	1/1	1/0	–/1	1/1	1/1						1025		1025		1025		1025	
ABC CHICKEN RICE	48	5	1/2	1–/1	1/2	1/2	–/2	1/2	1/2	1/2						1026		1026		1026		1026	
ABC CHICKEN GUMBO	48	2	0/1	0/0	0/0	0/0	0/1	–/0	0/1	0/0						1027		1027		1027		1027	
ABC CREAM OF CHICKEN	48	2	0/1	0/1	–/0	0/1	0/1	0/1	–/0	0/1						1028		1028		1028		1028	
ABC CHICKEN NOODLE	48	5	1/2	1/1	1/2	1/2	1/1	1/2	1/2	1/1						1029		1029		1029		1029	
ABC CLAM CHOWDER	48	2	0/1	0/1	–/0	0/1	0/1	0/1	–/0	0/1						1030		1030		1030		1030	
ABC CONSOMME	48	2	–/0	0/1	–/0	0/1	–/0	–/0	0/0	0/1						1031		1031		1031		1031	
ABC CREAM OF MUSHROOM	48	4	–/1	0/2	–/1	–/1	–/1	0/2	–/1	0/1						1032		1032		1032		1032	
ABC ONION	48	2	0/1	–/0	0/1	–/0	0/1	–/0	0/1	–/0						1033		1033		1033		1033	
ABC SCOTCH BROTH	48	2	–/0	0/1	–/0	0/1	–/0	0/1	–/0	0/1						1034		1034		1034		1034	
ABC PEPPER POT	48	2	0/1	–/0	0/1	–/0	0/1	–/0	0/1	–/0						1035		1035		1035		1035	

page 27 over

page 27 over | page 27 over | page 27 over | page 27 over

Figure 5.--An example of a grocery order book with a 13-week record of merchandise movement.

guide to weekly orders; (2) he can spot his slow movers by scanning the single record book; thus, he has information for making initial adjustment in space allocation for many items without summarizing item movement from previous record books and carrying data forward from one book to another; (3) the information on item movement in one or two 12- or 13-week record books is likely to be adequate for decisions on which slow-moving items may be discontinued.

Of course, the 13-week order book described requires the retailer to list his order twice, in the record that remains with him and on the sheets that are sent to the warehouse. However, the recopying time is a small fraction of the total ordering time and is likely to be less than a half hour per order. Moreover, this operation may be combined with a review of the order by the grocery manager or the store manager and thus be a useful device for assuring supervision of the store's ordering procedure.

Using the Information in the Order Book

Movement of individual grocery items may vary from week to week and season to season and, therefore, the information provided by the order books should be used promptly and systematically. Thus, for example, if a major change in store space allocation is not contemplated and it is physically impossible to review the entire grocery department and to make changes in considerable numbers of items in a matter of days, the work might be broken down by specific sections or groups of items. Then the movement of these items could be studied immediately after the record period is completed and changes could be made in space allocation, in items carried, etc. Afterwards, another group of items might be selected for study and change until the entire department had been reviewed.

Control of grocery inventories is a continuous task. Thus, records need to be maintained on a continuing basis, used, and the results reviewed periodically. Each week's grocery orders should be placed with due consideration to the record of movement in the order book form. The changes made in shelf allocation and new items added should not be considered permanent, but should be reviewed in the light of current records on movement and further changes made where indicated.

Adapting an Ordering System to Obtain Item Movement Data

The ordering system is a vitally important link in the relationship between the retail food store and its warehouse, and the order book is the key element of the system. Therefore, the design of the order book should take into account not only the possibilities for providing grocers with information on item movement but should not impair the smooth functioning of the ordering system. Where the basic record of movement remains with the retailer and the weekly, or twice weekly, order is made up on separate forms for transmittal to the warehouse, there is little need for changes in the ordering system. Invoicing and information on price changes probably can be handled in the form used before.

In introducing a new type of order book, it is most important that the book be acceptable to the grocer and that he understands how it can help him to operate more efficiently. Unless the grocer willingly makes the extra effort of maintaining records of movement and systematically uses the information, the value of a new type of order book designed for inventory control purposes is considerably reduced. The books may provide interesting data and may cause the grocery manager to reflect somewhat more about the importance of stock turnover, but the full potential value of sound inventory control will not be realized. Although additional work is needed to keep records of the movement of merchandise and to make adequate use of the information, retailers report that the rewards more than compensate for the additional effort when the books are properly used.